GOVERNMENT OF INDIA
SPACE
LOK SABHA

UNSTARRED QUESTION NO:4048
ANSWERED ON:19.02.2014
CHANDRAYAAN II
Hegde Shri. K. Jayaprakash

Will the Minister of SPACE be pleased to state:

(a) whether Chandrayaan-II mission was approved in 2008;

(b) If so, the progress made in the project so far;

(c) the stipulated time by which the project is likely to be completed;

(d) whether the Government is making any dedicated efforts to complete the mission within the stipulated time schedule;

(e) If so, the details thereof; and

(f) if not, the reasons therefor?

Answer

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG & PENSIONS AND IN THE PRIME MINISTER`S OFFICE (SHRI V. NARAYANASAMY):

(a) Yes Madam. Chandrayaan-II mission was approved by the cabinet in September 2008.

(b) Chandrayaan-II has been configured with an Orbiter, Lander and Rover for in-situ investigation of the lunar surface. The configuration of Chandrayaan-II Orbiter and Rover has been worked out, Preliminary Design Review of subsystems has been completed and hardware realization has been Initiated, A proto model of Rover has been realized and tests are being conducted in the lunar terrain test facility which has been developed for this mission. The Lander configuration is being arrived at and the development of subsystems for the Lander has been initiated. Payloads for the Lander and the landing site for this mission are being finalized.

Indian Space Research Organization (ISRO) and Russian Federal Space Agency (ROSCOSMOS) have been pursuing Chandrayaan-II as a joint mission under which, ROSCOSMOS had the responsibility for the Lander and ISRO had the responsibility to realize the Rover Module, Orbiter and the launch by GSLV.

Consequent to the failure of the Russian-led sample return mission to Phobos (one of the moons of Mars), ROSCOSMOS decided to increase the reliability of their planetary missions, which would result in increase in the mass of the Lander (planned for Chandrayaan-II). This shift In the approach for India-Russia joint mission, communicated in May 2012, called for a major programmatic realignment and lead to re-definition of Chandrayaan-II. Subsequently, an integrated programmatic review on Chandrayaan-II (chaired by Prof U R Rao), recommended that India could realize the Lander module. The revised Chandrayaart-II project with Indian Lander is currently under process In ISRO for approval by the Government.

(c) Based on the assessment of the progress, the project is likely to be completed by 2016-2017.

(d)& (e) A Geosynchronous Satellite Launch Vehicle is identified for Chandrayaan-II mission. A few landing sites have been identified, through the images obtained from earlier Moon missions, for soft landing.

The development of Indian Lander involves many new technologies in the areas of Navigation, control & guidance, Sensors, Leg mechanism and Reaction control systems, soft landing strategy, hazard avoidance, Mission planning,

A team has been Identified for the realization of Lander. Review mechanisms are in place for review of the new designs and developments. Specialist committees are in place for finalization of the critical systems in this mission.

(f) Does not arise.